



National Health and Nutrition Examination Survey

1999–2014 Survey Content Brochure



The Survey Content Brochure is a summary of the available 1999–2014 NHANES data.

The National Health and Nutrition Examination Survey (NHANES) is a program of studies designed to assess the health and nutritional status of adults and children in the United States. The survey is unique in that it combines interviews with physical and laboratory examinations.

The NHANES program began in the early 1960s and has been conducted as a series of surveys focusing on different population groups or health topics. The historical surveys are referred to as NHANES I, NHANES II, and NHANES III.

In 1999, the survey became a continuous program that has adaptable components on a variety of health and nutrition measurements to meet emerging needs. The survey examines a nationally representative sample of about 5,000 persons each year. These persons are located in counties across the country, 15 of which are visited each year.

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Table 1. Questionnaire topic areas of the National Health and Nutrition Examination Survey, 1999–2014

| <div><div></div> Component or lab test conducted on original sample description</div> <div><div></div> Change from original sample description</div> <div><div></div> Component or lab test not conducted</div> | | | | | | | | | |
|---|--------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Component | Sample description | 1999–2000 | 2001–2002 | 2003–2004 | 2005–2006 | 2007–2008 | 2009–2010 | 2011–2012 | 2013–2014 |
| Survey participant (SP) questionnaire | | | | | | | | | |
| Acculturation (ACQ) | 12 years and over | | | | | | | | Note T |
| Allergy (AGQ) | 1 year and over | | | | | | | | |
| Air quality (AQQ) | 16 years and over | | | | | | | | |
| Balance (BAQ) | 40 years and over | | | | | | | | |
| Blood pressure and cholesterol (BPQ) | 16 years and over | | | | | | | | |
| Cardiovascular disease (CDQ) | 40 years and over | | | | | | | | |
| Cognitive functioning (CFQ) | 60 years and over | | | | | | | Note A | |
| Demographic background (DMQ) | Birth and over | | | | | | | | |
| Dermatology (DEQ) | 6 years and over ¹ | | | | Note B | | | | |
| Diabetes (DIQ) | 1 year and over | | | | | | | | |
| Diet behavior and nutrition (DBQ) | Birth and over | | | | | | | | |
| Dietary screener module (DTQ) | 2–11 years | | | | | | | | |
| Dietary supplements (DSQ) and medications (RXQ) | Birth and over | | | | | | | | |
| Disability status (DLQ) | 1 year and over | | | | | | | | |
| Early childhood (ECQ) | Birth–15 years | | | | | | | | |
| Health insurance (HIQ) | Birth and over | Note C | | | | | | | |
| Hearing/audiometry (AUQ) | 1 year and over | | | | | | | | |
| Hepatitis (HEQ) | 6 years and over | | | | | | | | |
| Hospital utilization and access to care (HUQ) | Birth and over | | | | | | | | |
| Immunization (IMQ) | Birth and over | | | | | | | | |
| Inflammatory arthritis pain (ARQ) | 20–69 years | | | | | | | | |
| Kidney conditions (KIQ) | 20 years and over | | | | | | | | |
| Medical conditions (MCQ) | 1 year and over | | | | | | | | |
| Miscellaneous pain (MPQ) | 20 years and over | | | | | | | | |
| Occupation (OCQ) | 12 years and over ¹ | | | | Note D | | | | |
| Oral health (OHQ) | 2 years and over ¹ | | | | Note E | | Note F | | Note S |
| Osteoporosis (OSQ) | 20 years and over | | | | | | | | Note H |
| Physical activity and physical fitness (PAQ) | 2 years and over | | | | | | | | |
| Physical functioning (PFQ) | 1 year and over ¹ | | | | | | Note G | | |
| Respiratory health and disease (RDQ) | 1 year and over | | | | | | | | |
| Sleep disorders (SLQ) | 16 years and over | | | | | | | | |

See footnotes at end of table.

Table 1. Questionnaire topic areas of the National Health and Nutrition Examination Survey, 1999–2014 (Continued)



| | | <input checked="" type="checkbox"/> Component or lab test conducted on original sample description | <input checked="" type="checkbox"/> Change from original sample description | <input type="checkbox"/> Component or lab test not conducted | | | | | | |
|--|--------------------------------|--|---|--|-----------|-----------|-----------|-----------|-----------|--------|
| Component | Sample description | 1999–2000 | 2001–2002 | 2003–2004 | 2005–2006 | 2007–2008 | 2009–2010 | 2011–2012 | 2013–2014 | |
| Smoking and tobacco use (SMQ) | 20 years and over | | | | | | | | | Note E |
| Social support (SSQ) | 60 years and over ¹ | | | | Note H | | | | | |
| Taste and smell (CSQ) | 40 years and over | | | | | | | Note I | | |
| Tuberculosis (TBQ) | 1 year and over ¹ | | | | | | | Note J | | |
| Vision (VIQ) | 20 years and over ¹ | | | | Note K | | | | | |
| Weight history (WHQ) | 16 years and over | | | | | | | | | |
| Family questionnaire | | | | | | | | | | |
| Demographic background (DMQ) | Birth and over | | | | | | | | | |
| Consumer behavior (CBQ) | Birth and over | | | | | | | | | |
| Food security (FSQ) ² | Birth and over | | | | | | | | | |
| Health insurance (HIQ) | Birth and over | | | | Note L | | | | | |
| Housing characteristics (HOQ) | Birth and over | | | | | | | | | |
| Income (INQ) | Birth and over | | | | | | | | | |
| Pesticide use (PUQ) | Birth and over | | | | Note M | | | | | |
| Smoking-household (SMQ) | Birth and over | | | | | | | | | |
| Mobile examination center (MEC) questionnaire | | | | | | | | | | |
| Audio computer-assisted self-interview (ACASI) | 12 years and over | | | | | | | | | |
| Alcohol use (ALQ) | 12–19 years ¹ | | | | | | | Note N | | |
| Conduct disorders (CDQ) | 12–19 years | | | | | | | | | |
| Drug use (DUQ) | 12–59 years ¹ | | | | | Note O | | | | |
| Food security (FSQ) | 12–15 years | | | | | | | | | |
| Prostate conditions (PSQ) | Males 20 years and over | Note P | | | Note Q | | | | | |
| Pubertal maturation (PUQ) | 8–19 years | | | | | | | | | |
| Sexual behavior (SXQ) | 14–59 years ¹ | | | | | Note R | | | | |
| Smoking and tobacco use (SMQ)—Youth | 12–19 years ¹ | | | | | | | | | Note N |
| Computer-assisted personal interview (CAPI) | 12 years and over | | | | | | | | | |
| Alcohol use (ALQ) | 20 years and over ¹ | | | | | | | Note E | | |
| Bowel health (BHQ) | 20 years and over | | | | | | | | | |
| Current health status (HSQ) | 12 years and over | | | | | | | | | |
| Dietary screener module (DTQ) | 12–69 years | | | | | | | | | |
| Muscle pain/creatine kinase (CKQ) | 12 years and over | | | | | | | | | |
| Pesticide exposure (PUQ) | 8 years and over | | | | | | | | | |

See footnotes at end of table.

Table 1. Questionnaire topic areas of the National Health and Nutrition Examination Survey, 1999–2014 (Continued)



| | | ■ Component or lab test conducted on original sample description | | ■ Change from original sample description | | □ Component or lab test not conducted | | | |
|-------------------------------------|------------------------------|--|-----------|---|-----------|---------------------------------------|-----------|-----------|-----------|
| Component | Sample description | 1999–2000 | 2001–2002 | 2003–2004 | 2005–2006 | 2007–2008 | 2009–2010 | 2011–2012 | 2013–2014 |
| Physical activity (PAQ) | 12–15 years | | | | | | | | |
| Prostate conditions (KIQ) | Males 20 years and over | | | | | | | | |
| Reproductive health (RHQ) | Females 12 years and over | | | | | | | | |
| Smoking and tobacco use (SMQ)—Adult | 20 years and over | | | | | | | | Note K |
| Urology (KIQ) | 20 years and over | | | | | | | | |
| Volatile toxicants (VTQ) | 1/3 sample 12 years and over | | | | | | | | |
| Weight history (WHQ) | 8–15 years | | | | | | | | |

¹Except where noted otherwise.

²In 2001–2010, adult and child person-level food security data was collected after the dietary recall.

Note A: Moved to MEC questionnaire and expanded.

Note B: Aged 20–59 years.

Note C: Asked in family questionnaire.

Note D: Aged 16 years and over.

Note E: Aged 18 years and over.

Note F: Aged 30 years and over from 2009–2010 and 1 year and over from 2011–2014.

Note G: Aged 5 years and over.

Note H: Aged 40 years and over.

Note I: Started in 2012.

Note J: Aged 6 years and over.

Note K: Aged 12 years and over.

Note L: Found in SP questionnaire.

Note M: Found in MEC interview.

Note N: Aged 12–17 years.

Note O: Aged 12–69 years.

Note P: Found in SP questionnaire KIQ component.

Note Q: Moved to CAPI.

Note R: Aged 14–69 years.

Note S: Added questions related to the enhanced fluorosis examination.

Note T: Aged 3 years and over.

Table 2. Post-examination follow-up questionnaire components of the National Health and Nutrition Examination Survey, 1999–2014



| | | <input type="checkbox"/> Component or lab test conducted on original sample description | | <input type="checkbox"/> Change from original sample description | | <input type="checkbox"/> Component or lab test not conducted | | | |
|---|--|---|-----------|--|-----------|--|-----------|-----------|-----------|
| Component | Sample description | 1999–2000 | 2001–2002 | 2003–2004 | 2005–2006 | 2007–2008 | 2009–2010 | 2011–2012 | 2013–2014 |
| Flexible consumer behavior survey module (FCBS) phone follow-up (CBQ) | 1 year and over | | | | | | | | |
| Food frequency | 2 years and over | | | Note A | | | | | |
| Hepatitis C follow-up (HCQ) | SPs with Hep C | | | | | | | | |
| Prostate-specific antigen (PSA) follow-up | Men 40 years and over with high results ¹ | | | | Note B | | | | |

¹Except where noted otherwise.

Note A: Data collected by mail.

Note B: Conducted with men aged 40–70 years.

Table 3. Examination components of the National Health and Nutrition Examination Survey, 1999–2014

| Component | Sample description | <div> Component or lab test conducted on original sample description Change from original sample description Component or lab test not conducted </div> | | | | | | | |
|---|-------------------------------------|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | | 1999–2000 | 2001–2002 | 2003–2004 | 2005–2006 | 2007–2008 | 2009–2010 | 2011–2012 | 2013–2014 |
| Arthritis body measures | 20–69 years | | | | | | | | |
| Audiometry | 1/2 sample 20–69 years ¹ | | | | Note A | | | | |
| Balance | 1/2 sample 40–69 years ¹ | | Note B | | | | | | |
| Bioelectrical impedance analysis | 8–49 years | | | | | | | | |
| Blood pressure | 8 years and over | | | | | | | | |
| Body measurements | Birth and over | | | | | | | Note C | |
| Cardiovascular (CV) fitness | 12–49 years ¹ | | | | Note D | | | | |
| Cognitive function | 60 years and over | | | | | | | | |
| Dermatology | 20–59 years | | | | | | | | |
| Dietary | Birth and over | | Note E | | | | | | |
| Dietary supplement | Birth and over | | | | | Note F | | | |
| Dual energy x-ray absorptiometry | | | | | | | | | |
| Abdominal aortic calcification | 40 years and over | | | | | | | | |
| Body composition | 8 years and over ¹ | Note G | | | Note H | | | Note I | |
| Bone density—hip and spine | 8 years and over | | | | | | | | |
| Vertebral fracture assessment | 40 years and over | | | | | | | | |
| Grip strength test | 6 years and over | | | | | | | | |
| Lower extremity disease | | | | | | | | | |
| Peripheral neuropathy | 40 years and over | | | | | | | | |
| Peripheral vascular disease | 40 years and over | | | | | | | | |
| Mental health | 8–39 years | | | | | | | | |
| Attention deficit hyperactivity disorder (ADHD)—Youth | Parent of 8–15 years | Note K | | | | | | | |
| Anxiety—Youth | 8–19 years | | | | | | | | |
| Conduct disorders—Youth | Parent of 8–15 years | Note K | | | | | | | |
| Depression—Youth | 8–19 years | Note K | | | | | | | |
| Eating disorders—Youth | 8–19 years | Note K | | | | | | | |
| Elimination disorders—Youth | Parent of 8–11 years | Note K | | | | | | | |
| Panic disorder—Youth | 8–19 years | | | | | | | | |
| Depression—Adult | 1/2 sample 20–39 years ¹ | | | | Note L | | | | |
| Generalized anxiety—Adult | 1/2 sample 20–39 years | | | | | | | | |
| Panic disorder—Adult | 1/2 sample 20–39 years | | | | | | | | |

See footnotes at end of table.

Table 3. Examination components of the National Health and Nutrition Examination Survey, 1999–2014 (continued)



| | | Component or lab test conducted on original sample description | | | Change from original sample description | | Component or lab test not conducted | | |
|---------------------------|------------------------------|--|-----------|-----------|---|-----------|-------------------------------------|-----------|-----------|
| Component | Sample description | 1999–2000 | 2001–2002 | 2003–2004 | 2005–2006 | 2007–2008 | 2009–2010 | 2011–2012 | 2013–2014 |
| Ophthalmology | | | | | | | | | |
| Retinal photo | 40 years and over | | | | | | | | |
| Visual fields | 40 years and over | | | | | | | | |
| Oral health | 2 years and over | | | | Note M | | Note N | Note O | |
| Dental flurosis imaging | 2 years and over | | | | | | | | |
| Physical activity monitor | 6 years and over | | | | | | | Note P | |
| Physical functioning | | | | | | | | | |
| 8-foot timed walk | 50 years and over | Note K | | | | | | | |
| 20-foot timed walk | 50 years and over | | | | | | | | |
| Isokinetic | 50 years and over | | | | | | | | |
| Physician exam | Birth and over | | | | | | | | |
| Respiratory health | | | | | | | | | |
| Exhaled nitric oxide | 6–79 years | | | | | | | | |
| Spirometry | 6–79 years | | | | | | | | |
| Taste and smell | 40 years and over | | | | | | | Note Q | |
| Tuberculin skin test | 1 year and over ¹ | | | | | | | Note R | |
| Vision | 12 years and over | | | | | | | | |

¹Except where noted otherwise.

Note A: Target ages are varied by year.

Note B: Increased to full sample, 40 years and over.

Note C: Sagittal abdominal diameter was added for SPs 8 aged years and over; skinfolds were dropped in 2011 and added in 2012 for children aged 3–15 years.

Note D: Conducted with the afternoon and evening SPs.

Note E: In 2002, new interview system implemented; all SPs asked to complete a second recall by phone.

Note F: A second recall by phone.

Note G: Age range for women was 18 years and over.

Note H: Aged 8–69 years.

Note I: Aged 8–59 years.

Note J: Data collected by mail.

Note K: Data collection started in 2000.

Note L: Ages 12 years and over with full sample using PHQ–9 screener.

Note M: Changed from comprehensive dentist based exam to a simplified oral health screening for SPs aged 5 years and over.

Note N: Changed from a simplified health screening to a more comprehensive exam done by a dental hygienist.

Note O: Conducted by a dentist; sample is aged 1 year and over.

Note P: Ages 3 years and over in 2012.

Note Q: Data collection started in 2012.

Note R: Aged 6 years and over.

Table 4. Laboratory components of the National Health and Nutrition Examination Survey, 1999–2014

| | | Component or lab test conducted on original sample description Change from original sample description Component or lab test not conducted | | | | | | | |
|--------------------------------------|--|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Component | Sample description | 1999–2000 | 2001–2002 | 2003–2004 | 2005–2006 | 2007–2008 | 2009–2010 | 2011–2012 | 2013–2014 |
| Acrylamide | 3 years and over ¹ | | | | | Note A | | | Note A |
| Albumin ² | 6 years and over | | | | | | | | |
| Albumin (home urine) ² | | | | | | | Note B | | |
| Aldehydes | 1/3 sample (12 years and over) and all adult smokers | | | | | | | | |
| Apolipoprotein (B) | 1/2 sample 12 years and over | | | | Note C | | | | |
| Aromatic amines ² | 1/3 sample (6 years and over) and all adult smokers | | | | | | | | |
| Arsenic ² | 1/3 sample 6 years and over | | | | | | | | |
| Bone alkaline phosphatase | 8 years and over ¹ | | | Note D | | | | | |
| BV/trichomonas | Females 14–49 years | | | | | | | | |
| Cadmium | 1 year and over | | | | | | | | Note JJ |
| Caffeine exposure ² | 1/3 sample (6 years and over) | | | | | | | | |
| CD4/CD8 | 18–49 years, HIV+, and controls | | | | | | | | |
| Celiac disease (tTG-EMA) | 6 years and over | | | | | | | | |
| Chemistry panel | 12 years and over | | | | | | | | |
| Chlamydia ² | 14–39 years | | | | | | | | |
| Cholesterol (total) | 3 years and over ¹ | | | | Note A | | | | |
| High density lipoprotein (HDL) | 3 years and over ¹ | | | | Note A | | | | |
| Low density lipoprotein (LDL) | Subsample 3 years and over ¹ | | | | Note E | | | | |
| Complete blood count | 1 year and over | | | | | | | | |
| Cotinine | 3 years and over | | | | | | | | |
| C-reactive protein (CRP) | 3 years and over ¹ | | | Note F | | Note G | | | |
| Creatine phosphokinase | 12 years and over | | | | | | Note H | | |
| Creatinine ² | 6 years and over | | | | | | | | |
| Creatinine (home urine) ² | 6 years and over | | | | | | | Note B | |
| Cryptosporidium | 6–49 years | | Note I | | | | | | |
| Cytomegalovirus | 1–5 years | | | | | | | | |
| Dust allergens | 1 year and over | | | | | | | | |
| Environmental phenols | 1/3 sample 6 years and over | | | | | | | | |
| Erythrocyte protoporphyrin | 1 year and over ¹ | | | Note J | | | | | |
| Estradiol | 6 years and over | | | | | | | | |

See footnotes at end of table.

Table 4. Laboratory components of the National Health and Nutrition Examination Survey, 1999–2014 *(continued)*



| | | ■ Component or lab test conducted on original sample description | | ■ Change from original sample description | | □ Component or lab test not conducted | | | |
|--|---|--|-----------|---|----------------|---------------------------------------|-----------|-----------|-----------|
| Component | Sample description | 1999–2000 | 2001–2002 | 2003–2004 | 2005–2006 | 2007–2008 | 2009–2010 | 2011–2012 | 2013–2014 |
| Ferritin | 1 year and over ¹ | | | Note K | | | | | |
| Fibrinogen | 40 years and over | | | | | | | | |
| Fluoride (plasma) | 6–19 years | | | | | | | | |
| Fluoride (water) | Birth–19 years | | | | | | | | |
| Folate (RBC) | 3 years and over ¹ | | | Note F | | | | | |
| Folate (serum) | 3 years and over ¹ | | | Note F | | | | | |
| Follicle stimulating hormone/luteinizing hormone (FSH/LH) | Females 35–60 years | | | | | | | | |
| Fungicides ² | 1/3 sample 6 years and over ¹ | Note L | | | | | | | |
| Glucose | 12 years and over | | | | | | | | |
| Glycohemoglobin | 12 years and over | | | | | | | | |
| Gonorrhea ² | 14–39 years | | | | | | | | |
| Halogenated phenolic compounds/environmental pesticides ² | 1/3 sample 6 years and over ¹ | Note L | | | | | | | |
| Helicobacter pylori | 3 years and over | | Note I | | | | | | |
| Hepatitis (antiHBs) | 2–5 years | | | | | | | | |
| Hepatitis A, B, C, D, E | 6 years and over | | | | | Note M | | Note M | |
| Herbicides—substituted ureas and others | 1/3 sample 6 years and over ¹ | Note L | | | | | | | |
| Herpes 1 and 2 antibody | 14–49 years | | | | | | | | |
| Heterocyclic aromatic amines ² | 1/3 sample (6 years and over) and all adult smokers | | | | | | | | |
| HLA-B27 (inflammatory arthritis) | 20–69 years | | | | | | Note N | | |
| Homocysteine | 3 years and over ¹ | | | | Note O | | | | |
| Human immunodeficiency virus (HIV) antibody | 18–49 years | | | | | | Note P | | |
| Human papillomavirus (HPV) (oral rinse) | 14–69 years | | | | | | | | |
| Human papillomavirus (HPV) (serum) | 14–59 years | | Note Q | | | | | | |
| Human papillomavirus (HPV) (swab) | Females 14–59 years | | Note Q | | | | | | |
| Human papillomavirus (HPV) (male) | 14–59 years | | | | | | | | |
| Hydroxylated polychlorinated biphenyls | 1/3 sample 12 years and over | | | | | | | | |
| Immunoglobulin E-allergens | 1 year and over | | | | | | | | |
| Insulin/C-peptide | Subsample 12 years and over | Note C | | | Note R, Note C | | | | |

See footnotes at end of table.

Table 4. Laboratory components of the National Health and Nutrition Examination Survey, 1999–2014 (continued)

| | | <div> <div>Component or lab test conducted on original sample description</div> <div>Change from original sample description</div> <div>Component or lab test not conducted</div> </div> | | | | | | | |
|--|---|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Component | Sample description | 1999–2000 | 2001–2002 | 2003–2004 | 2005–2006 | 2007–2008 | 2009–2010 | 2011–2012 | 2013–2014 |
| Iodine ² | 1/3 sample 6 years and over ¹ | Note S | | | | Note S | | | |
| Iron | 1 year and over | | | Note T | | | | | |
| Latex | 12–59 years | | Note I | | | | | | |
| Lead | 1 year and over | | | | | | | | Note JJ |
| Lead dust | Households with 1–5 years | | | | | | | | |
| Lp(a) (Lipoprotein(a)) | Subsample 12 years and over | | | | Note U | | | | |
| Manganese ² | 1/3 sample 6 years and over | | | | | | | | |
| Measles/varicella/rubella | 6–49 years | | | | | | Note V | | |
| Mercury | 1–5 years, females 16–49 years ¹ | | | Note F | | | | | |
| Mercury (hair) | 1–5 years, females 16–49 years | | Note I | | | | | | |
| Mercury ² | Females 16–49 years ¹ | | | Note W | | | | | |
| Metals ² | 1/3 sample 6 years and over | | | | | | | | |
| Methicillin resistant staphylococcus aureus (MRSA) | 1 year and over | | | | | | | | |
| Methylmalonic acid | 3 years and over ¹ | | | | | | | Note O | |
| NAL ² | 6 years and over | | | | | | | | |
| Nicotine analogs ² | 1/3 sample (6 years and over) and all adult smokers | | | | | | | | |
| Nondioxin-like polychlorinated biphenyls | 1/3 sample 12 years and over | | | | Note II | | Note II | | |
| N-teleopeptide ² (NTX) | 8 years and over | | | | | | | | |
| Oral glucose tolerance (OGTT) | Subsample 12 years and over | | | | Note C | | | | |
| Organophosphate insecticides ² | 1/3 sample 6 years and over ¹ | Note L | | | | | | | |
| Osmolality ² | 6 years and over | | | | | | | | |
| Parathyroid hormone | 6 years and over | | | | | | | | |
| Perchlorate/thiocyanate/nitrates ² | 6 years and over ¹ | | Note X | | | | | | |
| Perchlorate (water) | 1/2 sample 12 years and over | | | | | | | | |
| Pesticides ² | | | | | | | | | |
| Organochlorine ² | 1/3 sample 12 years and over | | | | | | | | |
| Other ² | 1/3 sample 6 years and over ¹ | Note L | | | | | | | |
| Pyrethroid ² | 1/3 sample 6 years and over ¹ | | Note Y | | | | | | |
| Phthalates ² | 1/3 sample 6 years and over | | | | | | | | |

See footnotes at end of table.

Table 4. Laboratory components of the National Health and Nutrition Examination Survey, 1999–2014 *(continued)*


| | | <div> <div>■ Component or lab test conducted on original sample description</div> <div>■ Change from original sample description</div> <div>□ Component or lab test not conducted</div> </div> | | | | | | | |
|---|---|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Component | Sample description | 1999–2000 | 2001–2002 | 2003–2004 | 2005–2006 | 2007–2008 | 2009–2010 | 2011–2012 | 2013–2014 |
| Phytoestrogens ² | 1/3 sample 6 years and over | | | | | | | | |
| Polyaromatic hydrocarbons ² (PAH) | 1/3 sample 6 years and over | | | | | | | | |
| Polybrominated diphenyl ethers | 1/3 sample 12 years and over | | | | Note II | | | | |
| Polychlorinated and polybrominated dibenzo-p-dioxins, dibenzo-furans, coplanar and mono-ortho-substituted biphenyls | 1/3 sample 12 years and over | | | | Note II | | | | |
| Polyfluorinated compounds | 1/3 sample 12 years and over ¹ | Note Z | | | | | | | |
| Polyunsaturated fatty acids | 3–11 years, a.m. SPs 12 years and over | | | Note AA | | | | | |
| Prostate specific antigen (PSA) | Males 40 years and over | | | | | | | | |
| Selenium/copper/zinc | 3–11 years ¹ | | Note BB | Note CC | | | | Note DD | |
| Sex hormone binding globulin | 6 years and over | | | | | | | | |
| Stored sera | 6 years and over | | | Note EE | | | | | |
| Stored urine | 6 years and over | | | | | | | | |
| Syphilis | 18–49 years | | | | | | | | |
| Testosterone | 6 years and over | | | | | | | | |
| Thyroid function testing | 1/3 sample 12 years and over ¹ | | | | | Note FF | | | |
| Tobacco-specific nitrosamines ² | 1/3 sample (6 years and over) and all adult smokers | | | | | | | | |
| Total iron binding capacity (TIBC)/transferrin saturation | 1 year and over ¹ | | | Note T | | | | | |
| Toxaphenes | 1/3 sample 12 years and over | | | | | | | | |
| Toxoplasma | 6–49 years | Note Z | | | | | | | |
| Trans fatty acids | 3–11 years, a.m. SPs 12 years and over | | | | | | | | |
| Transferrin receptor | 1–5 years, females 12–49 years | | | | | | | | |
| Trichomonas | 14–59 years | | | | | | | | |
| Triglycerides | Subsample 3 years and over ¹ | | | | Note E | | | | |
| Tuberculosis | 6 years and over | | | | | | | | |
| Urine flow rate calculation ² | 6 years and over | | | | | | | | |
| Vitamin A/E/carotenoids | 3 years and over ¹ | | | Note A | | | | | |
| Vitamin B6 | 1 year and over | | | | | | | | |

See footnotes at end of table.

Table 4. Laboratory components of the National Health and Nutrition Examination Survey, 1999–2014 (continued)

| | | Component or lab test conducted on original sample description Change from original sample description Component or lab test not conducted | | | | | | | |
|---|---|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Component | Sample description | 1999–2000 | 2001–2002 | 2003–2004 | 2005–2006 | 2007–2008 | 2009–2010 | 2011–2012 | 2013–2014 |
| Vitamin B12 | 3 years and over ¹ | | | Note F | | | | Note O | |
| Vitamin C | 6 years and over | | | | | | | | |
| Vitamin D | 6 years and over ¹ | Note GG | | | | | | | |
| Volatile nitrosamines ² | 1/3 sample (6 years and over) and all adult smokers | | | | | | | | |
| Volatile organic compounds (VOCs) | Subsample 20–59 years ¹ | | | | Note HH | | | | |
| Volatile organic compounds (VOC) exposure monitor | Subsample 20–59 years | | Note I | | | | | | |
| Volatile organic compounds (VOC) (urine) | Subsample (12 years and over) and all adult smokers | | | | | | | | |
| Volatile organic compounds (VOC) (water) | Subsample 20–59 years ¹ | | | | Note HH | | | | |
| White blood cells/deoxyribonucleic acid (WBC/DNA) | 20 years and over | | | | | | | | |

¹Except where noted otherwise.

²Urine sample.

Note A: Aged 6 years and over. In 2013, Acrylamide test was conducted on one-third sample 6 years and over.

Note B: Second specimen is collected in home.

Note C: Morning SPs only.

Note D: Aged 8–49 years.

Note E: Aged 12 years and over; morning SPs only.

Note F: Aged 1 year and over.

Note G: In 2007–2008, for ages 20 and over; for ages 3 years and over in 2009–2010.

Note H: Data collection started in 2010.

Note I: Data collection ended in 2001.

Note J: Aged 3–5 years and females aged 12–49 years.

Note K: Aged 1–5 years and females aged 12–49 years.

Note L: In 1999, subsample was one-fourth of those aged 12–59 years; in 1999–2002, subsample was one-half of those aged 6–11 years.

Note M: Started hepatitis E in 2009.

Note N: Conducted in 2009 only.

Note O: Aged 20 years and over.

Note P: Aged 18–59 years.

Note Q: Data collection began in 2002.

Note R: Insulin only.

Note S: Data collection began in 2000 and was a full sample in 2007–2008 only.

Note T: Age range changed to 3–5 years and females aged 12–59 years.

Note U: Conducted in 2005 only.

Note V: Mumps added.

Note W: Conducted on a one-third sample of SPs aged 6 years and over.

Note X: Analyzed retrospectively from surplus sera, 2001–2004; in 2005–2012, subsample was one-third of those aged 6 years and over.

Note Y: In 2001–2002, subsample was one-half of those aged 6–11 years.

Note Z: Analyzed retrospectively from surplus sera, 1999–2000.

Note AA: Analyzed retrospectively from surplus sera, 2003–2006.

Table 4. Laboratory components of the National Health and Nutrition Examination Survey, 1999–2014 *(continued)*



Note BB: Selenium ended in 2001.
Note CC: In 2003–2004, selenium was conducted on SPs aged 40 years and over.
Note DD: Copper and zinc added. conducted on one-third sample on SPs aged 6 years and over.
Note EE: Reduced number of vials.
Note FF: In 2007–2008, full sample.
Note GG: Vitamin D began in 2000; in 2003–2012, vitamin D was conducted on SPs aged 1 year and over.
Note HH: Conducted on a one-half sample of SPs aged 12 years and over.
Note II: The individual serum samples were assigned by age, race and ethnicity, and gender groups; then the serum was pooled and tested by each group.
Note JJ: All SPs aged 1–11 years; one-half sample aged 12 years and over.

Appendix. Acronyms and abbreviations used in the National Health and Nutrition Examination Survey



| | |
|------------|---|
| ACASI | Audio computer-assisted self-interview |
| ADHD | Attention deficit hyperactivity disorder |
| BV | Bacterial vaginosis |
| CAPI | Computer-assisted personal interview |
| CBQ | Consumer behavior questionnaire |
| CD4/CD8 | T lymphocyte helper cells |
| CDISC | National Institute of Mental Health's Computerized Diagnostic Interview Schedule for Children |
| CIDI | World Health Organization's Composite International Diagnostic Interview |
| CRP | C-reactive protein |
| CV fitness | Cardiovascular fitness |
| FCBS | Flexible Consumer Behavior Survey module |
| FSH/LH | Follicle stimulating hormone/luteinizing hormone |
| HBs | Hepatitis B surface antibody |
| HDL | High density lipoprotein |
| HIV | Human immunodeficiency virus |
| HLA-B27 | Human leukocyte antigen B27 |
| HPV | Human papillomavirus |
| LDL | Low density lipoprotein |
| Lp(a) | Lipoprotein (a) |
| MEC | Mobile examination center |
| MRSA | Methicillin resistant staphylococcus aureus |
| NTX | N-telopeptides of bone type I collagen |
| OGTT | Oral glucose tolerance test |
| PAH | Polycyclic aromatic hydrocarbons |
| PSA | Prostate specific antigen |
| PTH | Parathyroid hormone |
| RBC | Red blood cell |
| SP | Survey participant |
| TH | Thyroxine |
| TIBC | Total iron binding capacity |
| TSH | Thyroid stimulating hormone |
| TTG-EMA | Anti-transglutaminase (tTG) and anti-endomysium (EMA) antibodies |
| VOC | Volatile organic compounds |
| WBC/DNA | White blood cells/deoxyribonucleic acid |

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